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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,590	07/23/2003	Dirk Heinrich	233812US0	7530

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EXAMINER

PADGETT, MARIANNE L

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/624,590	Applicant(s) HEINRICH ET AL.	
	Examiner Marianne L. Padgett	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/23/03, 1/8/04 & 8/31/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/8/04, 7/23/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Applicant's election with traverse of group I, process claims 1-19 in the reply filed on 8/31/2005 is acknowledged. The traversal is on the ground(s) that the examiner's alternate process of making a coated pipe product via use of a flame source to melt the coating rather than a medium induction coil is insufficient due to lack of proof. This is not found persuasive because any one of minimum skill in the art of melting polymers would recognize that either of these sources of heat are capable of melting generic polymers to get a generic melted coating surface on a generic pipe of no particular material. The example provided by examiner Bruenies, is found by the present examiner to provide reasonable expectation of the ability to produce analogously generically polymer melt coated pipes.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Used of relative terms that lack metes and bounds in the claims, or in a clear definitions in the specification or relevant cited prior art, are vague and indefinite. In the claims see "smooth" in "smooth melt coating" (what scope is included by smooth the, is any melt coat considered smooth, or what degree of roughness is smooth?), and "medium" in "medium frequency" (what range of frequencies is encompassed by this term, page 5 provides examples of 10,000 or 2000 Hz, but examples are not definitions).

In claim 17 is the "before cooling the water" the same cooling that is being referred to in claim 1, line 5, or a different one? While the examiner suspects the former is the intent, the claim language does not clearly necessitate that.

3. The IDS's of 1/8/2004 & 7/23/2003 are made of record, with the German untranslated reference considered to the extent it can be analyzed without knowing German.

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3, 8-9, 12, 14-15, 18 & 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Quresti et al. (4,771,523).

Quresti et al. (523) teach nylon coating metal tubing on the exterior via a sequence of steps that includes cleaning, then heating, then galvanizing, then optionally metal treating, such as via a chromating or phosphating, then drying, then priming with a spray liquid, then preheating via induction heating, then powder coating via a fluidized bed technique with over the fusible powder such as nylon 11 or 12, then induction heating which produces a high gloss surface finish, i.e. smooth, then Quresti has an additional

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fluidized bed coating which is not excluded by applicants claims, and cooling/quenching. Quresti teaches closely controlling the thickness of the coatings, where the thickness of the first powder coating is $2.5-4 \approx 63-102 \mu\text{m}$. See the abstract; figures; column 1, lines 5-10 & 24-54; column 2, lines 17-49 & 62-68; column 3, lines 43-column 5, lines 26 & 54-column 6, lines 3, 11-30 & 37-41. Note during the induction post powder deposition heating that the coated material will inherently initially softened and smooth as it proceeds to heat sufficiently to melt. Note that induction heating inherently uses radio frequencies and while Quresti does not disclose what frequencies are employed, neither does applicant's relative term of "medium frequency" require any specific range of frequencies to be used.

6. Claims 4-7, 10 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quresti et al. (523).

Quresti et al. does not teach that pulverulent fusable powder may be formed of a precipitated powder, nor do they provide a mean deviations for their coating thickness or disclose and if they are sprayed priming liquid contains a suspension a solution or a powder. It would have been obvious to one of ordinary skill in the art to employ conventional means of initially forming a powder source material, which includes precipitating nylon materials from solution, which one may then mill to get the desired size of the pulverulent polymer, because use of a precipitated powder would require less work to get a powder to the desired size than starting with a solid block of polymer to grind.

As Quresti et al. teaches closely controlling thicknesses of the powdered nylon coatings it would've been obvious to one of ordinary skill in the art that the meeting thickness deviations would have been minimized, hence controlled within limits as claimed by applicants.

As suspensions or solutions are typical forms of liquid coating materials that may be sprayed and used as primers, it would've been obvious to one of ordinary skill in the art to use such typical means of formulating a liquid priming material due to suggestions of the primer being a liquid and expectations of their being effective means of delivery. Given that suspensions and solutions generally involve the use of

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solvents the subsequent preheating step would inherently cause evaporation of any solvent present to occur.

7. Claims 11, 13 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quresti et al. (523) as applied to claims 1-10, 12, 14-16 & 18-19 above, and further in view of Facer et al. (3,560,239).

Quresti does not have the details and of various claimed air movement systems employed in various heating and fluidized in steps, however Facer et al who is teaching an analogous process to be employed to coat wires or like elongated structures teaches such air movement in the various steps, hence it would've been obvious to one of ordinary skill in the art to employ conventional means for air movement such as suggested fans or suggested air manifolds or air seals, as they would've provided affects as discussed in Facer et al., which would have been equally advantageous in Quresti et al, such as for the ability to draw off fumes via suction caused by a fan. In Facer et al, see figures; abstract; column 1, lines 54-71+; column 2, lines 34-66; column 3, lines 1-62.

8. Claims 1, 14 & 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Church (3108022).

In Church, see figures; column 1, lines 10-29; column 2, lines 41-column 3, line 11; column 4, line 63-column 5, line 48; column 6, line 52-column 7, line 6, etc.

9. Other art of interest includes Quresti et al. (4621399) & Ostrowski (3965551), which are substantially equivalent to Quresti et al. (523); and Blinov et al & Kato et al with further polymer melt coding techniques using induction heating.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP 11/13 & 14/2005



**MARIANNE PADGETT
PRIMARY EXAMINER**